

## PROJECT DESCRIPTION

### GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 7 AND CONTINENTAL DRIVE/WILLIAM PACA SCHOOL ENTRANCE IN HARFORD COUNTY. MD 7 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

### INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 7 APPROACHES OPERATING CONCURRENTLY AND THE CONTINENTAL DRIVE/WILLIAM PACA ELEMENTARY SCHOOL ENTRANCE APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR EASTBOUND AND WESTBOUND MD 7 APPROACHES.

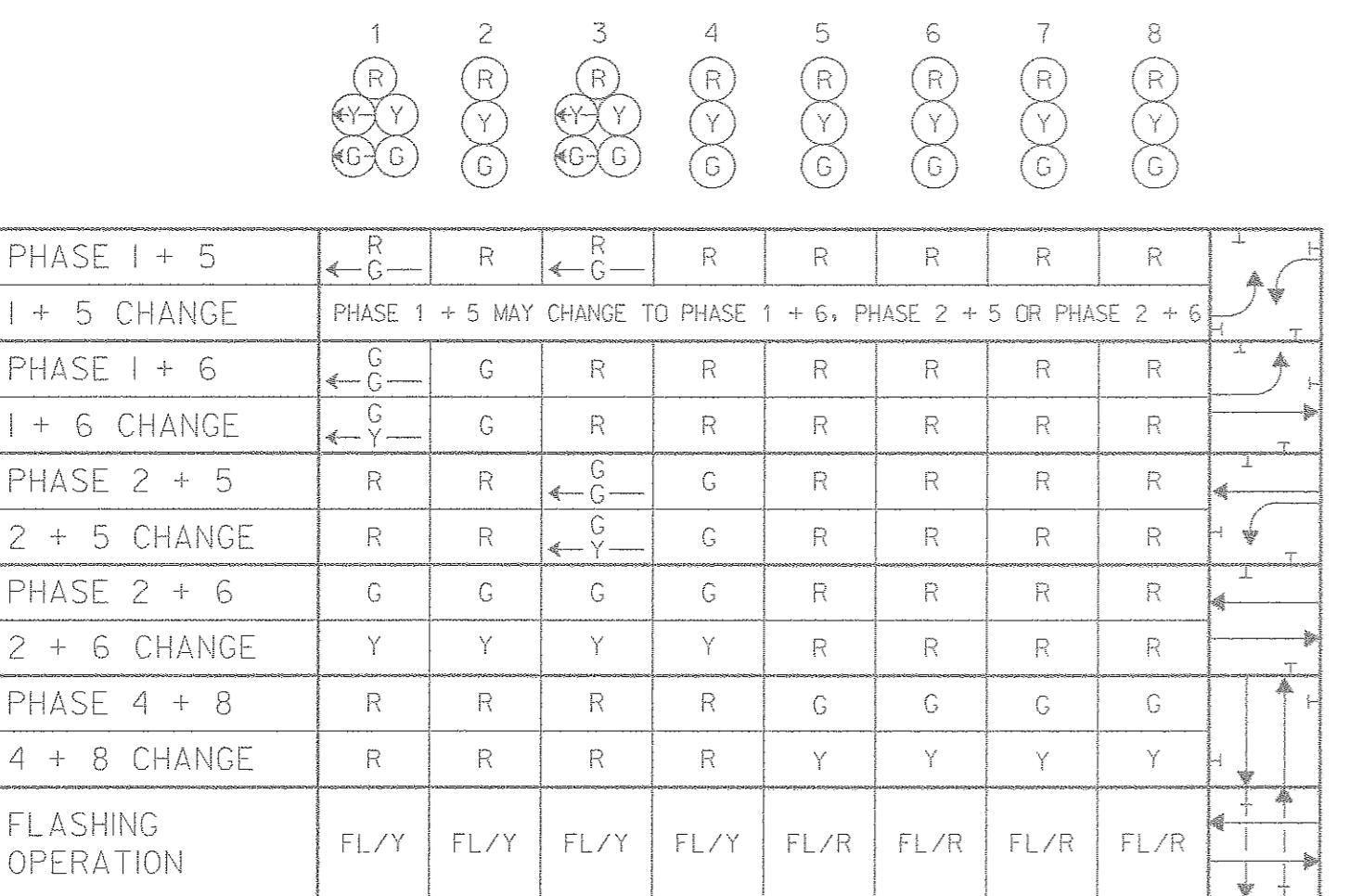
### CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH THREE (3), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

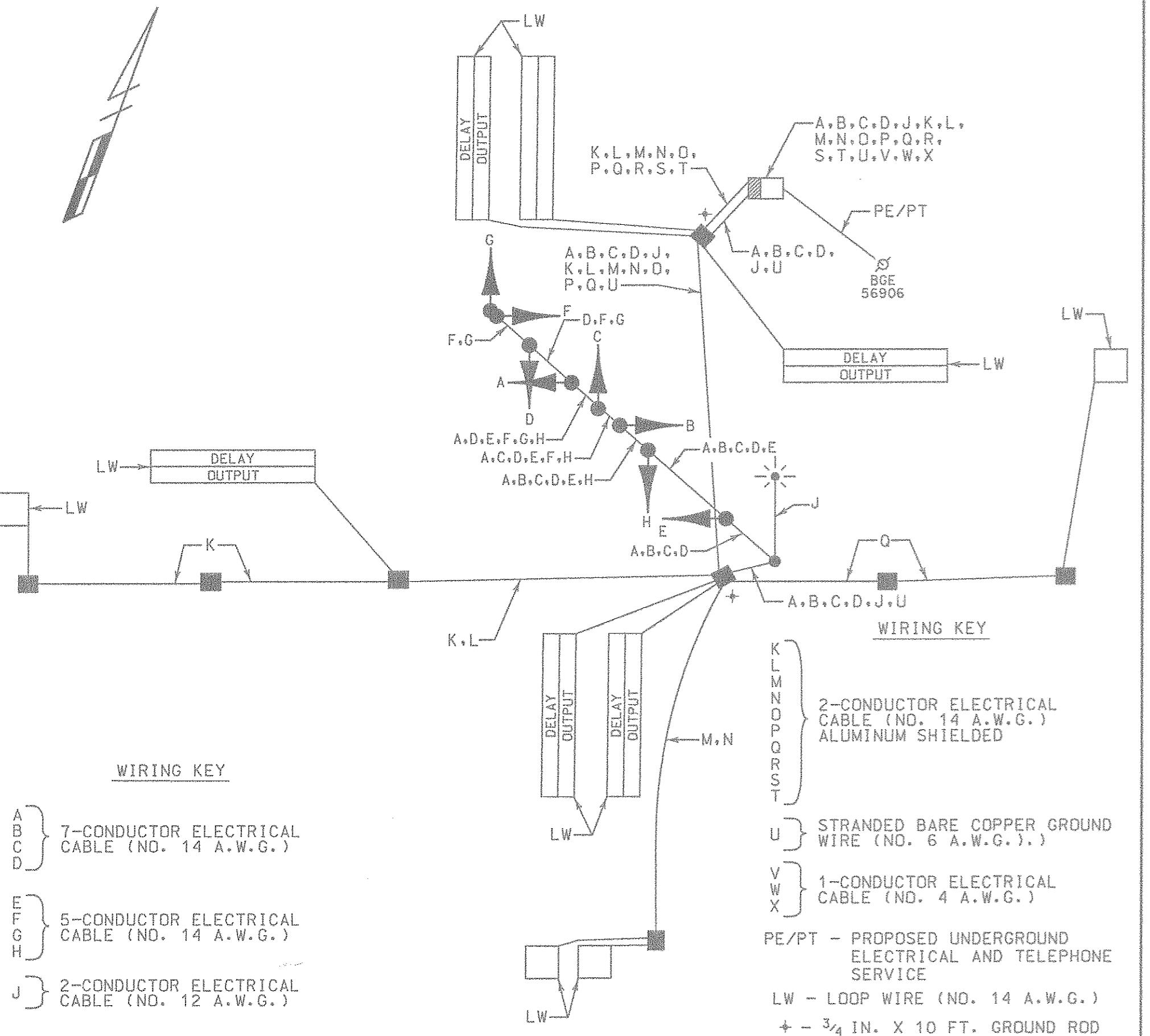
### SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

## PHASE CHART



## WIRING DIAGRAM



## EQUIPMENT LIST "A"

### A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9002	3 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9081	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
9089	104 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 2 EACH R10-12 SIGN (36 IN. X 42 IN.) - MAST ARM MOUNT.
		- 1 EACH D-3(1) SIGN (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT
		- 1 EACH D1-1(2) SIGN (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT
		- 2 EACH W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) AND FLAG - GROUND MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, MD 7, RIGHT ARROW" (24 IN. X 51 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, MD 7, LEFT ARROW" (36 IN. X 75 IN.) - GROUND MOUNT

## PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. DAVE MALKOWSKI  
DISTRICT ENGINEER  
PHONE: (410) 321-2810

MR. RANDALL SCOTT  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 321-2781

MR. DAVE RAMSEY  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 321-2761

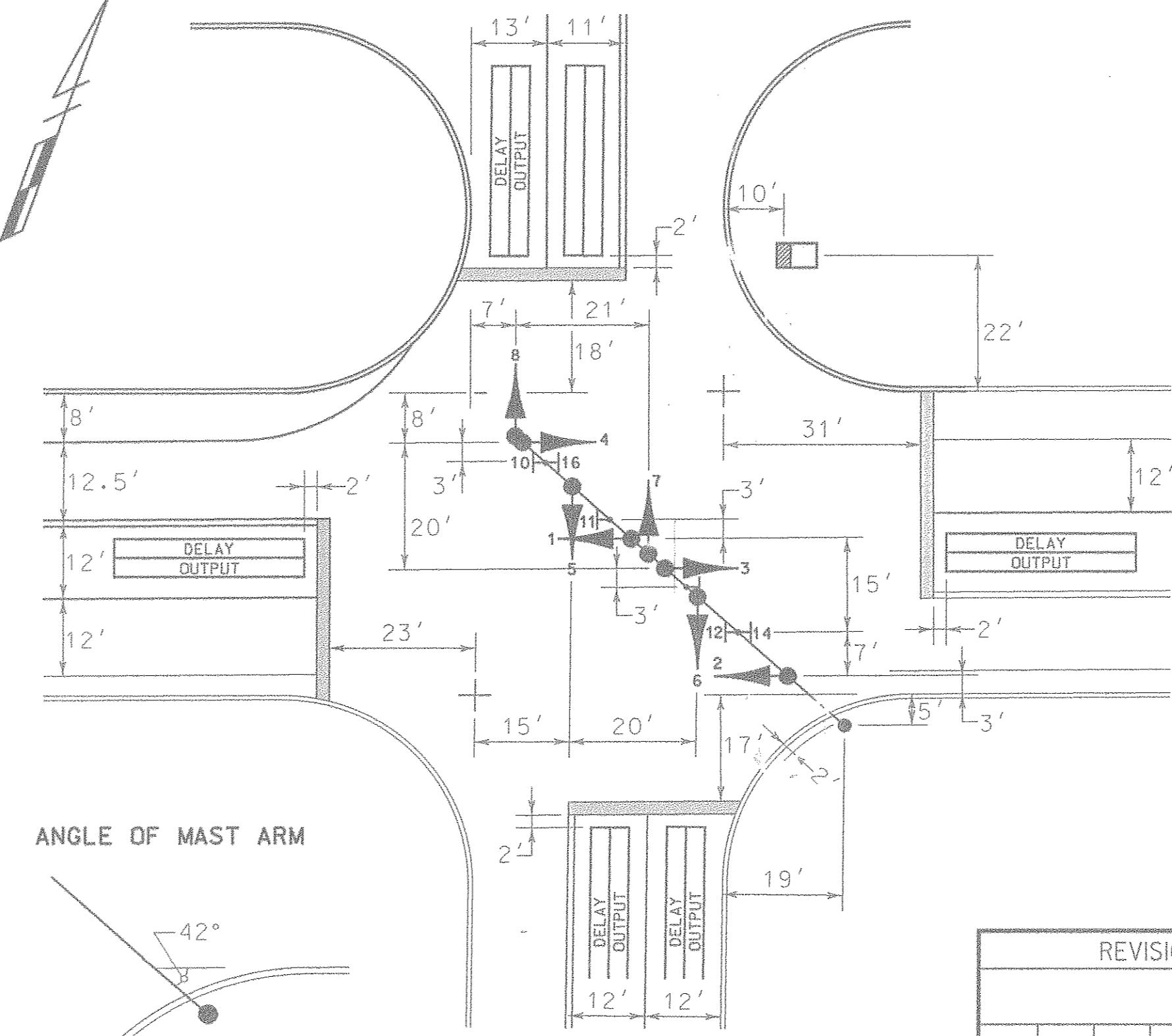
MR. GRADON TOBERY  
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
PHONE: (410) 321-2821

MR. JOSEPH MCMAHON  
DISTRICT UTILITIES ENGINEER  
PHONE: (410) 321-2841

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

## DIMENSION DIAGRAM

SCALE 1" = 20'



## EQUIPMENT LIST "B"

### B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2001	2 C.Y.	TEST PIT EXCAVATION
5001	950 L.F.	5 IN. YELLOW THERMOPLASTIC PAVEMENT MARKING TAPE
5002	370 L.F.	5 IN. WHITE THERMOPLASTIC PAVEMENT MARKING TAPE
5004	150 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING TAPE
5007	700 L.F.	REMOVE EXISTING PAVEMENT MARKING - ANY WIDTH
5008	2 EACH	REMOVE EXISTING PAVEMENT MARKING LETTER OR ARROW
8001	7 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8020	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	990 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8023	150 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	825 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8027	50 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8030	90 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8031	160 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8033	8 EACH	FURNISH AND INSTALL ELECTRICAL HANDBOLES
8034	2 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8040	3250 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	1730 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8044	120 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	800 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8046	175 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
8048	135 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8049	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. - THHN/THWN
8051	80 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 6 IN.
8052	51 S.F.	INSTALL GROUND MOUNTED SIGN
8053	53 S.F.	INSTALL OVERHEAD SIGN
8055	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8056	1 EACH	FURNISH AND INSTALL 15 FT. LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8060	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8066	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PHASE 3 WIRE SYST)
8079	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND 70 FT. MAST ARM
8084	28 EACH	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
NEG	20 S.F.	RELOCATE EXISTING GROUND MOUNTED SIGN AND SUPPORT

## MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30

STANDARD NO. MD-104.31-01 (INTERSECTION FLAGGING OPERATION)

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

STANDARD NO. MD-104.35-01 (LANE SHIFT)

## APPROVALS

ASST. TRAFFIC ENGINEERING DESIGN DIVISION

ASST. DISTRICT ENGINEER, TRAFFIC

CHEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
GENERAL INFORMATION SHEET  
MD 7 (OLD PHILADELPHIA RD) AND  
WILLIAM PACA ELEM. SCHOOL/CONTINENTAL DR.

DRAWN BY: S.BLOSS F.A.P. NO. TS NO.  
CHECKED BY: N.LEARY S.H.A. NO. HA188A54/B54 TS-3923  
SCALE: NONE COUNTY: HARFORD  
DATE: 7-7-99 LOG MILE: 12000704.71  
T.I.M.S. NO. D. 362 SHEET NO. 2 OF 2